

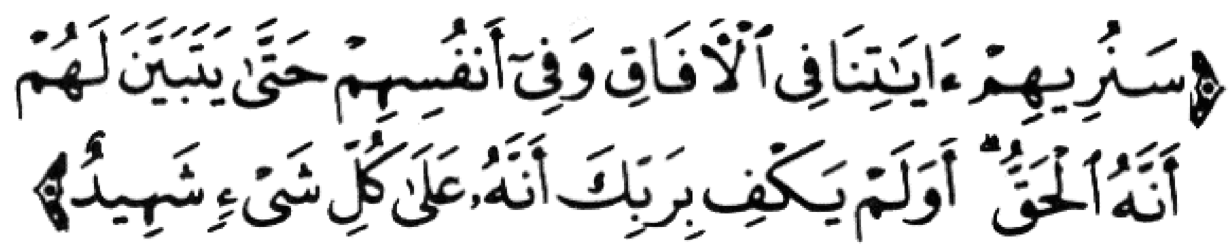
THE QUR'AN AND MODERN SCIENCE

BY
DR MAURICE BUCAILLE
(FRENCH ACADEMY OF MEDICINE)

WORLD ASSEMBLY OF MUSLIM YOUTH
(WAMY)

Publisher's Preface

Allah the Almighty has said:



We will show them Our signs in the universe and in their own-selves, until it becomes manifest to them that this (Quran) is the truth . Is it not sufficient in regard to your Lord that He is a Witness over all things? (41:53)

This book is actually the most important chapter of Dr. Maurice Bucaille's great treatise, The Bible The Qur'an and Science. " It is not the faith in Islam" Says Dr. Bucaille, "that first guided my steps, but simple research for the truth. This is how I see it today. It was the mainly fact which, by the time I had finished my study, had led me to see in the Qur'an a text revealed to a prophet".

Allah the Almighty says:

﴿ ذَٰلِكَ ٱلْكِتَٰبُ لَا رَيْبَ ۛ فِيهِ ۛ هُدًى لِّلْمُتَّقِينَ ﴾

This is the Book (The Qur'an) Whereof there is no doubt, a guidance to those who are Godfearing. (2:2).

The fact which led Dr. Bucaille to this conviction was that it would be unthinkable for a man of Mohammad's time to have been the author of such statements on account of the states of the knowledge in his days.

The Qur'an and Modern Science is the product of an objective research into the scientific data contained in the holy Qur'an. The author, a great French scholar, has conducted a similar research on the Bible through which he discovered a lot of fallacious and unworthy statements on matters relating to science. His research on the Qur'an made manifest

to him that there are more scientific data in the holy Qur'an than he imagined, the data are scientifically accurate far ahead of the state of knowledge at the period when the Qur'an was revealed and in the line with discoveries of modern science and it led the author to believe that the Qur'an is not and cannot be human work.

For the purpose of his study, Dr. Bucaille grouped such Qur'anic verses containing scientific data under general headings as Creation, Astronomy, the Earth , etc.

This book contains a precious message for today's scientists in particular and modern man in general, but it should be kept in mind , as the author himself warns, that the Qur'an is not interested to be scientific book, but it is a religious book, par excellence. This book provides for its reader the proof that the Qur'an is the final revelation of Allah. But this is in a nutshell. If our dear readers like to study this subject in detail, we shall advise them to read the complete book of Dr. Maurice Bucaille, The Bible The Qur'an and Science.

The World Assembly of Muslim Youth is pleased to make this pamphlet available for those interested in the topic of the Qur'an and science. This Pamphlet indicates the real harmony between science and religion in Islam which is the opposite of what many peopole think that these two topics are irreconcilable with each other. The Islamic stand on this point is that the Qur'an is the divine revelation received by prophet Mohammad (pbuh) from Allah and the natural laws (or science) are the natural revelation from Allah discovered by scientists.

Any contradictions between the two sources of revelation have to be due to man's misconception of either religion or science rather than differences between the two.

We, at WAMY, like to thank Dr. Bucaille for his kind permission to publish this important treatise on this important topic.

THE QUR'AN AND MODERN SCIENCE

ON 9 NOVEMBER 1976, an unusual lecture was given at the French Academy of Medicine. Its title was " Physiological and Embryological data in the Qur'an." I presented my study on the existence in the Qur'an of certain statements concerning physiology and reproduction. My reason for doing this was that our knowledge of these disciplines is such, that it is impossible to explain how a text produced at the time of the Qur'an could have contained ideas that have only been discovered in modren times.

There is indeed no human work prior to modern times that contains statements which were equally in advance of the state of knowledge at the time they appeared and which might be compared to the Qur'an.

In addition to this, a comparative study of data of a similar kind contained in the Bible (Old Testament and Gospels) seemed desirable. This is how the peoject was formed of a confrontation between modern knowledge and certain passage in the Holy Scriptures of each monotheistic religion. It resulted in the publication of a book under the title, *The Bible, The Qur'an and Science*. The first French edition appeared in May 1976. (Seglers, Paris). English * and Arabic editions have now been published.

It comes as no surprise to learn that Religion and Science have always been considered to be twin sisters by Islam and that today, at a time when science has taken such great strides, they still continue to be associated, and furthermore certain scientific data are used for the better understanding of the Qur'anic text. What is more, in a century where, for many, scientific truth has dealt a deathblow to religious belief, it is precisely the discoveries of science that, in an objective examination of the Islamic Revelation, have highlighted the supernatural character of certain aspects of the Revelation.

When all is said and done, generally speaking, scientific knowledge would seem, in spite of what people may say, to be highly conducive to reflection on the existence of God.

* Published by American Trust Publications,7216 S. Madison Ave., Indianapolis, Ind. 46227, USA.

Once we begin to ask ourselves in an unbiased or unprejudiced way about the metaphysical lessons to be derived from some of today's knowledge,(for example our knowledge of the infinitely small or the problem of life), we indeed discover many reasons for thinking along these lines. When we think about the remarkable organization presiding over the birth and maintenance of life, it surely becomes clear that the likelihood of it being the result of chance gets less and less, as our knowledge and progress in this field expand. Certain concepts must appear to be increasingly unacceptable: for example, the one put forward by the French winner of the Nobel prize for Medicine who tried to get people to admit that living matter was self-created as the result of fortuitous circumstances under the effect of certain outside influences using simple chemical elements as their base. From this it is claimed that living organisms came into being, leading to the remarkable complex called man. To me, it would seem that the scientific progress made in understanding the fantastic complexity of higher beings provides strong arguments in favour of the opposite theory: in other words, the existence of an extraordinarily methodical organization presiding over the remarkable arrangement of the phenomena of life.

In many parts of the book, the Qur'an leads, in simple terms, to this kind of general reflection. But it also contains infinitely more precise data which are directly related to facts discovered by modern science: these are what exercise a magnetic attraction for today's scientists.

ENCYCLOPEDIA KNOWLEDGE NECESSARY TO UNDERSTAND THE QUR'AN

For many centuries, man was unable to study them, because he did not possess sufficient scientific means. It is only today that numerous verses of the Qur'an dealing with natural phenomena have become fully comprehensible. I should even go so far as to say that, in the 20th century, with its compartmentalization of everincreasing knowledge, it is not always easy for the average scientist to understand everything he reads in the Qur'an on such subjects, without having recourse to specialized research. This means that to understand all such verses of the Qur'an one is today required to have an absolutely encyclopaedic knowledge, by which I mean, one which embraces very many disciplines.

I use the word 'science' to mean knowledge which has been soundly established. It does not include the theories which, for a time, help to explain a phenomenon or a series of phenomena, only to be abandoned later on in favour of explanations which have become more plausible thanks to scientific progress. I basically only intend to deal with comparisons between statements in the Qur'an and knowledge which is not likely to be subject to further discussion. Wherever I introduce scientific facts which are not yet 100% established, I shall, of course, make this quite clear.

There are also some very rare examples of statements in the Qur'an which have not, as yet, been confirmed by modern science: I shall refer to these by pointing out that all the evidence leads scientists to regard them as being highly probable. An example of this is the statement in the Qur'an that life is of aquatic origin; and another is that somewhere in the Universe there are earths similar to our own.

These scientific considerations should not, however, make us forget that the Qur'an remains a religious book par excellence and that it cannot, of course, be expected to have a 'scientific' purpose per se. Whenever man is invited to reflect upon the works of creation and the numerous natural phenomena he can observe, the obvious intention, in using such examples, is to stress Divine Omnipotence. The fact that, in these reflections, we can find allusions to data connected with scientific knowledge is surely another of God's gifts whose value must shine out in an age where scientifically based materialistic atheism seeks to gain control at the expense of the belief in God.

Throughout my research I have constantly tried to remain totally objective. I believe I have succeeded in approaching the study of the Qur'an with the same objectivity that a doctor has when he opens a file on a patient: In other words, by carefully confronting all the symptoms he can find to arrive at a diagnosis. I must admit that it was certainly not the faith in Islam that first guided my steps, but simple research for the truth. This is how I see it today. It was mainly fact which, by the time I had finished my study, had led me to see in the Qur'an text revealed to a prophet.

We shall examine statements in the Qur'an which appear today merely to record scientific truth, but which men in former times were only able to grasp the apparent meaning of. How is it possible to imagine that, were there any subsequent alterations to the texts, these obscure passages scattered throughout the text of the Qur'an were able to escape human manipulation? The slightest alteration

to the text would automatically have destroyed the remarkable coherence which is characteristic of them, and prevented us from establishing their conformity with modern knowledge. The presence of these statements spread throughout the Qur'an looks to the impartial observer like an obvious hallmark of authenticity.

The Qur'an is a preaching which was made known to man in the course of a Revelation which lasted roughly twenty-three years. It spanned two periods of equal length on either side of the Hegira. In view of this, it was natural for reflections having a scientific aspect to be scattered throughout the Book. In the case of a study such as the one we have made, we had to regroup them according to subject, collecting them sura by sura.

How should they be classified? I could not find any indications in the Qur'an suggesting any paticular classification. So I have decided to present them according to my own personal one.

It would seem to me, that the first subject to be dealt with is the Creation. Here it is possible to compare the verses referring to this topic with the general ideas prevalent today on the formation of the Universe. Next, I have divided up verses under the following general headings: Astronomy, the Earth, the Animal and Vegetable Kingdoms, Man, and Human Reproduction in particular; the later is a subject which, in the Qur'an, is alloted a very important place. To these general headings it is possible to add sub-headings.

Furthermore, I thought it useful to make a comparison between Qur'anic and Biblical narrations from the point of view of modern knowledge. This has been done in the case of such subjects as the Creation, the Flood and the Exodus.

CREATION OF THE UNIVERSE

Let us first examine the Creation as described in the Qur'an.

An extremely important general idea emerges: this is its dissimilarity with the Biblical narration. This idea contradicts the parallels which are often, and wrongly, drawn by western authors to underline solely the resemblances between the two texts.

When talking of the Creation, as of other subjects there is a strong tendency in the West to claim that Muhammad only copied the general outlines of the Bible. It is indeed possible to compare the six days of the Creation as described in the Bible, plus an extra day of rest on God's sabbath, with this verse from sura *Al A'raf* (7:54).

﴿ إِنَّ رَبَّكُمُ ٱللَّهُ ٱلَّذِى خَلَقَ ٱلسَّمَٰوَٰتِ وَٱلْأَرْضَ فِى سِتَّةِ أَيَّامٍ ﴾

Your Lord is Allah Who created the heavens and the earth in six days.

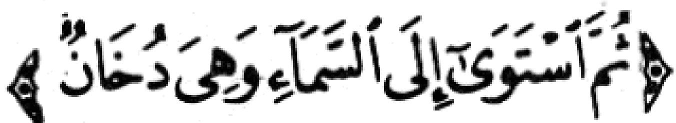
We must point out straight away that modern commentators stress the interpretation of *ayyam*, one translation of which is ' days ', as meaning ' long periods ' or ' ages' rather than periods of twenty-four hours.

What to me appears to be of fundamental importance is that, in contrast to the narration contained in the Bible, the Qur'an does not lay down a sequence for the Creation of the Earth and Heavens. It refers both to the Heavens before the Earth and the Earth before the Heavens, when it talks of the Creation in general, as in this verse of the sura *Taha* (20:4).

﴿ تَنزِيلًا مِّمَّنْ خَلَقَ ٱلْأَرْضَ وَٱلسَّمَٰوَٰتِ ٱلْعُلَى ﴾

A revelation from Him (Allah) Who created the earth and the high heavens.

In fact, the notion to be derived from the Qur'an is one of a concomitance in the celestial and terrestrial evolutions. There are also absolutely fundamental data concerning the existence of an initial gaseous mass (*dukhan*) which is unique and whose elements although at first fused together (*ratq*) subsequently became separated (*fatq*). This notion is expressed in the sura *Fussilat* (41:11).



God turned to Heaven when it was smoke.

And the same is expressed in the sura *Al Anbiya'* (21:30).

﴿أولم ير الذين كفروا أن السموت والأرض كانتا رتقا ففتقنهما﴾

Do not the unbelievers see that the heavens and the earth were joined together, then We clove them asunder?

The separation process resulted in the formation of multiple worlds, a notion which crops up dozens of times in the Qur'an, once it has formed the first verse in the sura *Al Fatiha* (1:1) .

﴿الحمد لله رب العلمين﴾

Praise be to God, the Lord of the Worlds.

All this is in perfect agreement with modern ideas on the existence of primary nebula and the process of secondary separation of the elements that formed the intial unique mass. This separation resulted in the formation of galaxies and then, when these divided, of stars from which the planets were to be born.

Reference is also made in the Qur'an to an intermediary Creation between the Heavens and the Earth, as in the sura *Al Furqan* (25:59).

﴿الذى خلق السموت والأرض وما بينهما فى ستة أيام
ثم استوى على العرش الرحمن فسئل به خبيرا﴾

He Who created the heavens and the earth and all that is between , in six days, Then He established Himself on the Throne. Allah Most Gracious: Ask thou, then, about Him of any acquainted (with such things).

It would seem that this intermediary Creation corresponds to the modern discovery of bridges of matter which are present outside organised astronomical systems.

This in the Qur'an agree on a large number of points. We have come a long way from the Biblical text with its successive phases that are totally unacceptable; especially the one placing the Creation of the Earth (on the 3rd day) before that of the Heavens (on the 4th day), when it is a known fact that our planet comes from its own star, the Sun. In such circumstances, how can we imagine

that a man who drew his inspiration from the Bible could have been the author of the Qur'an, and, of his own accord, have corrected the Biblical text to arrive at a general concept concerning the formation of the Universe, when this concept was not to be formed until centuries after his death? .

ASTRONOMY - LIGHT AND MOVEMENT

Let us now turn to the subject of Astronomy.

Whenever I describe the details the Qur'àn contains on certain points of astronomy to westerners, it is unusual for someone not to reply that there is nothing special, in this, considering the Arabs made important discoveries in this field long before the Europeans.

This is, in fact, a singularly mistaken idea resulting from an ignorance of history . In the first place, science was developed in Arabian countries at a time that was considerably after the Qur'ànic Revelation had occurred; in the second, the scientific knowledge prevalent at the highpoint of Islamic civilization would not have made it possible for a human being to have written statements on the Heavens comparable to those in the Qur'an.

Here again, the subject is so wide that I can only provide an outline of it.

Whereas the Bible talks of the Sun and the Moon as two luminaries differing in size, the Qur'àn distinguishes between them by the use of different epithets: light (*nur*) for the Moon, torch (*siraj*) for the Sun. The first is an inert body which reflects light, the second a celestial formation in a state of permanent combustion, and a source of light and heat.

The word 'star' (*najm*) is accompanied by another qualifying it which indicates that it burns and consumes itself as it pierces through the shadows of the night : it is the word *thakib.* In the Qur'àn, the *kawakib* definitely seems to mean the planets which are celestial formations that reflect and do not produce light like the Sun.

Today it is known how the celestial organization is balanced by the position of stars in a defined orbit and the interplay of gravitational forces related to their mass and speed of movement, each with its own motion. But isn't this what the Qur'àn describes, in terms which have only become comprehensible in

our own day , when it mentions the foundation of this balance in the sura *Al Anbiya'* (21:33).

﴿وَهُوَ ٱلَّذِى خَلَقَ ٱلَّيْلَ وَٱلنَّهَارَ وَٱلشَّمْسَ وَٱلْقَمَرَ كُلٌّ فِى فَلَكٍ
يَسْبَحُونَ﴾

[God is] the One Who created the night, the day, the sun and the moon. Each one is travelling in an orbit with its own motion.

The Arabic word which expresses this movement is a verb *sabaha* (*yasbahun* in the text): it carries with it the idea of a motion which comes from any moving body, be it the movement of one's legs as one runs on the ground, or the action of swimming in water. In the case of a celestial body, one is forced to translate it in the original sense, that is, to travel with one's own motion'.

The description of the sequence of day and night would, in itself, be rather common place were it not for the fact that, in the Qur'àn, it is expressed in terms that today are highly significant. This is because it uses the verb *kawwara* in the sura *Al Zumar* (39:5) to describe the way the night 'winds' or 'coils' itself about the day and the day about the night, just as in the original meaning of the verb, a turban is wound around the head. This is a totally valid comparison; yet at the time the Qur'àn was revealed, the astronomical data necessary to draw it were unknown.

The evolution of the Heavens and the notion of a settled place for the Sun are also described. They are in agreement with highly detailed modern ideas. The Qur'àn also seems to have alluded to the expansion of the Universe.

There is also the conquest of space. This has been undertaken thanks to remarkable technological progress and has resulted in man's journey to the Moon. But this surely springs to mind when we read the sura *Al Rahman* (55:33).

﴿يَٰمَعْشَرَ ٱلْجِنِّ وَٱلْإِنسِ إِنِ ٱسْتَطَعْتُمْ أَن تَنفُذُوا۟ مِنْ أَقْطَارِ
ٱلسَّمَٰوَٰتِ وَٱلْأَرْضِ فَٱنفُذُوا۟ لَا تَنفُذُونَ إِلَّا بِسُلْطَٰنٍ﴾

O assembly of jinns and men, if you can penetrate regions of the heavens and the earth, then penetrate them! You will not penetrate them save with [Our] Power.

This power comes from the Almighty, and the subject of the whole sura is an invitation to recognize God's Beneficence to man.

THE EARTH

Let us now return to Earth.

Let us examine, for example, this verse in the sura *Al Zumar* (39:21).

﴿ أَلَمْ تَرَ أَنَّ ٱللَّهَ أَنزَلَ مِنَ ٱلسَّمَآءِ مَآءً فَسَلَكَهُۥ يَنَٰبِيعَ فِى
ٱلْأَرْضِ ثُمَّ يُخْرِجُ بِهِۦ زَرْعًا مُّخْتَلِفًا أَلْوَٰنُهُۥ ﴾

Has thou not seen that God sent water down from the sky and led it through sources into the ground? then He caused sown fields of different colours to grow.

Such notions seem quite natural to us today, but we should not forget that they were not prevalent long ago. It was not until the sixteenth century, with Bernard Palissy, that we gained the first coherent description of the water cycle. Prior to this, people talked about the theory whereby the water of the oceans, under the effect of winds, were thrust towards the interior of the continents. They then returned to the oceans via the great abyss, which, since Plato's time, has been called the Tartarus. In the seventeenth century, a great thinker such as Descartes believed in it, and even in the ninteenth century there was still talk of Aristotle's theory, according to which water was condensed in cool mountain caverns and formed underground lakes that fed springs. Today, we know that it is the infiltration of rainwater that is responsible for this. If one compares the facts of modern hydrology with the data to be found in numerous verses of the Qur'àn on this subject, one cannot fail to notice the remarkable degree of agreement between the two.

In Geology , a fact of recently acquired knowledge is the phenomenon of folding, which was to form the mountain ranges.

The same is true of the Earth's crust, which is like a solid shell on which we can live, while the deeper layers are hot and fluid, and thus inhospitable to any form of life. It is also known that the stability of the mountains is linked to the phenomenon of folding, for it was the folds that were to provide foundations for the reliefs that constituted the mountains.

Let us now compare modern ideas with one verse among many in the Qur'àn that deals with this subject. It is taken from the sura '*Al Naba'* (78:6-7).

﴿أَلَمْ نَجْعَلِ ٱلْأَرْضَ مِهَـٰدًا وَٱلْجِبَالَ أَوْتَادًا﴾

Have We not made the earth an expanse and the mountains stakes?

The stakes (*awtad*), which are driven into the ground like those used to anchor a tent, are the deep foundations of geological folds.

Here, as in the case of other topics, the objective observer cannot fail to notice the absence of any contradictions with modern knowledge.

But more than anything else, I was struck, at first, by statements in the Qur'àn dealing with living things, both in the animal and vegetable kingdoms, especially with regard to reproduction.

I must once again stress the fact, that it is only since modern times, that scientific progress has made the content of many such verses more comprehensible to us. There are also other verses which are more easily understandable, but which conceal a biological meaning that is highly significant. This is the case of the sura *Al-Anbiya'*, a part of which has already been quoted:

﴿وَجَعَلْنَا مِنَ ٱلْمَآءِ كُلَّ شَىْءٍ حَىٍّ أَفَلَا يُؤْمِنُونَ﴾

Do not the unbelievers see that the heavens and the earth were joined together, then We clove them asunder and we got every living thing out of the water. Will they then not believe : (21:30).

This is an affirmation of the modern idea that the origin of life is aquatic.

Progress in botany at the time of Muhammad was in no country advanced enough for it to be established as a rule that plants have both male and female parts. Nevertheless, we may read the following in the sura *Taha* (20:53).

﴿ٱلَّذِى جَعَلَ لَكُمُ ٱلۡأَرۡضَ مَهۡدٗا وَسَلَكَ لَكُمۡ فِيهَا سُبُلٗا وَأَنزَلَ مِنَ ٱلسَّمَآءِ مَآءٗ فَأَخۡرَجۡنَا بِهِۦٓ أَزۡوَٰجٗا مِّن نَّبَاتٖ شَتَّىٰ﴾

(God is the One Who) sent water down from the sky and thereby We brought forth pairs of plants each separate from the other.

Today, we know that fruit comes from plants that have sexual characteristics (even when it comes from unfertilized flowers, like bananas). In the sura *Al Ra'd* (13:3) we read:

﴿وَمِن كُلِّ ٱلثَّمَرَٰتِ جَعَلَ فِيهَا زَوۡجَيۡنِ ٱثۡنَيۡنِۖ يُغۡشِى ٱلَّيۡلَ ٱلنَّهَارَۚ﴾

And fruits of every kind He made in pairs, two and two. He draweth the Night as a veil O'er the Day. Behold, verily In this things there are Signs For those who consider !.

Reflections on reproduction in the animal kingdom were linked to those on human reproduction. We shall examine them presently.

In the field of physiology, there is one verse which, to me, appears extremely significant : one thousand years before the discovery of the circulation of the blood, and roughly thirteen centuries before it was known what happened in the intestine to ensure that the organs were nourished by the process of digestive absorption, a verse in the Qur'an describes the source of the constituents of milk, in conformity with these notions.

To understand this verse, we have to know that chemical reactions occur in the intestine and that, from there, substances extracted from food pass into the bloodstream via a complex system, sometimes by way of the liver, depending on their chemical nature.

The blood transports them to all the organs of the body, among which are the milk-producing mammary glands.

Without entering into detail, let us just say that, basically, there is the arrival of certain substances from the contents of the intestines into the vessels of the intestinal wall itself, and the transportation of these substances by the bloodstream.

This concept must be fully appreciated, if we are to understand this verse in the Qur'an *Al Nahl* (16:66)

﴿وَإِنَّ لَكُمْ فِي ٱلْأَنْعَٰمِ لَعِبْرَةً نُّسْقِيكُم مِّمَّا فِي بُطُونِهِۦ
مِنۢ بَيْنِ فَرْثٍ وَدَمٍ لَّبَنًا خَالِصًا سَآئِغًا لِّلشَّٰرِبِينَ﴾

Verily, in cattle there is a lesson for you. We give you to drink of what is inside their bodies, coming from a conjunction between the contents of the intestines and blood, a milk pure and pleasant for those who drink it.

THE CREATION OF MAN

In the Qur'an the subject of human reproduction leads to a multitude of statements which constitute a challenge to the embryologist seeking a human explanation to them. It was only after the birth of the basic sciences which were to contribute to our knowledge of biology, and especially after the invention of microscope, that man was able to understand such statements. It was impossible for a man living in the early seventh century to have expressed such ideas. There is nothing to indicate that, at this time, men in the Middle East and Arabia knew anything more about this subject than men living in Europe or anywhere else. Today, there are many Muslims with a thorough knowledge of the Qur'àn and natural sciences who have clearly recognised the comparisons to be made between the verses of the Qur'àn dealing with reproduction and human knowledge. I shall always remember the comment of an eighteen year old Muslim, brought up in Saudi Arabia, replying to a reference to the question of reproduction as de

scribed in the Qur'an . Pointing to it, he said, " But this book provides us with all the essential information on the subject" When I was at school they used the Qur'àn to explain to me how children were born; your books on sex-educations are a bit late on the scene !'

It is on this point in particular, that a comparison between the beliefs current at the time of the Qur'àn, that were full of superstations and myths, and the contents of the Qur'àn and modern data, leaves us amazed at the degree of concordance between the latter and the absence of any reference in the Qur'an to the mistaken ideas that were prevalent at the time.

Let us now isolate , from all these verses, precise ideas concerning the complexity of the fertilizing liquid and the fact that an infinitely small quantity is required to ensure fertilization, its quintessence' - if I may so translate the Arabic word '*sulala*'.

The implantation of the egg in the female genital organ is perfectly described in several verses by the word ' *Alaq*, which is also the title of the sura in which it appears:

﴿خَلَقَ ٱلْإِنسَٰنَ مِنْ عَلَقٍ﴾

God fashioned man from something which clings (96:2).

I do not think there is any reasonable translation of the word '*Alaq* other than to use its original sense.

The evolution of the embryo inside the maternal uterus is only briefly described, but the description is accurate, because the simple words referring to it correspond exactly to fundamental stages in its growth. This is what we read in a verse from the sura *al-Mu'minun* (23:14).

﴿ثُمَّ خَلَقْنَا ٱلنُّطْفَةَ عَلَقَةً فَخَلَقْنَا ٱلْعَلَقَةَ مُضْغَةً فَخَلَقْنَا ٱلْمُضْغَةَ عِظَٰمًا فَكَسَوْنَا ٱلْعِظَٰمَ لَحْمًا ثُمَّ أَنشَأْنَٰهُ خَلْقًا ءَاخَرَ فَتَبَارَكَ ٱللَّهُ أَحْسَنُ ٱلْخَٰلِقِينَ﴾

We fashioned the thing which clings into a chewed lump of flesh and We fashioned the chewed flesh into bones and We clothed the bones with intact flesh!

The term 'chewed flesh ' (*mudga*) corresponds exactly to the appearance of the embryo at a certain stage in its development.

It is known that the bones develop inside this mass and that they are then covered with muscle. This is the meaning of the term " intact flesh " (*lahm*).

The embryo passes through a stage where some parts are in proportion and others out of proportion with what is later to become the individual. Maybe this is the meaning of a verse in the sura *Al Hajj* (22:5) which reads as follows:

﴿فَإِنَّا خَلَقْنَاكُم مِّن تُرَابٍ ثُمَّ مِن نُّطْفَةٍ ثُمَّ مِنْ عَلَقَةٍ ثُمَّ
مِن مُّضْغَةٍ مُّخَلَّقَةٍ﴾

We fashioned [man] into something which clings into a lump of flesh in proportion and out of proportion.

Next, we have a reference to the appearance of the senses and viscerae in the sura *Al Sajda* (32:9).

﴿وَجَعَلَ لَكُمُ السَّمْعَ وَالْأَبْصَارَ وَالْأَفْئِدَةَ﴾

[God] appointed for you the senses of hearing, sight and the viscerae.

Nothing here contradicts today's data and, furthermore , none of the mistaken ideas of the time has crept into the Qur'an.

QURAN AND BIBLE

We have now come to the last subject; it is the confrontation, with modern knowledge, of passages in the Qur'an that are also referred to in the Bible.

We have already caught a glimpse of the problem when talking of the Creation. Earlier I stressed the perfect agreement between modern knowledge

and verses in the Qur'an, and pointed out that the Biblical narration contained statements that were scientifically unacceptable. This is hardly surprising when we know that the great narration of the Creation contained in the Bible was the work of priests living in the the sixth century BC, hence the term 'Sacerdotal ' narration. This seems mainly to have been conceived as the theme of a preaching designed to exhort people to observe the sabbath. The narration was constructed with a definite end in view, and, as Father de Vaux (a former head of the Biblical School of Jerusalem) has noted, this end was essentially legalist in character.

The Bible also contains a much shorter and older narration of the Creation, the so-called 'Yahvist' version, which approaches the subject from a completely different angle.

They are both taken fron Genesis, the first book of the Pentateuch or Taurah: Moses is supposed to have been its author, but the text we have today has, as we know, undergone many changes.

The Sacerdotal narration of Genesis is famous for its whimsical genealogies, that go back to Adam, and which nobody takes very seriously. Nevertheless, such Gospel authors as Matthew and Luke have reproduced them, more or less verbatim, in their genealogies of Jesus. Matthew goes back as far as Abraham, and Luke to Adam. All these writings, are scientifically unacceptable, because they set a figure on the age of the world and the time man appeared on Earth, which is most definitely out of keeping with what has today been established with certainty. The Qur'an, on the other hand, is completely free of data of this kind.

Earlier on, we also noted how perfectly the Qur'an agrees with general, modern ideas on the formation of the Universe, whereas the Biblical narration stands in contradiction to them; the allegory of the primordial waters is hardly tenable, nor is the creation of light on the first day, before the creation of the stars which produce this light; the existence of an evening and morning before the creation of the Earth; the creation of the Earth on the third day before that of the Sun on the fourth; the appearance of beasts of the Earth on the sixth day after the appearance of the birds of the air on the fifth day, although the former came first: all these statements are the result of beliefs prevalent at the time this text was written and do not have any other meaning.

As for the genealogies contained in the Bible, which form the basis of the Jewish calendar and assert that toaday the world is 5738 years old, these are hardly admissible either. Our solar system may well be 4 1/4 billion years old, and the appearance on Earth of man, as we know him today, may be estimated in tens of thousands of years, *if not more*.

It is absolutely essential, therefore, to note that the Qur'an does not contain any such indications as to date, and that these are specific to the Biblical text.

There is a second, highly significant, subject of comparison between the Bible and the Qur'an: this is the Flood. In actual fact, the Biblical narration is a fusion of two descriptions in which events are related differently. The Bible speaks of a universal flood and places it roughly 300 years before Abraham. According to what we know of Abraham, this would imply a universal cataclysm around the twenty-first or twenty-second century BC. This would be untenable, in view of historical data.

How can we accept the idea that, in the twenty-first or twenty-second century BC, all civilization was wiped off the face of the Earth by a universal cataclysm, when we know that this period corresponds, for example, to the one preceding the Middle Kingdom in Egypt, at roughly the date of the first Intermediary period before the eleventh dynasty?

None of the preceding statements is acceptable according to modern knowledge.

From this point of view, we can measure the enormous gap separating the Bible from the Qur'an.

In contrast to the Bible , the narration contained in the Qur'an deals with a cataclysm that is limited to Noah's people. They were punished for their sins, as were other ungodly peoples. The Qur'an does not locate the cataclysm in time. There are absolutely no historical or archaeological objections to the narration in the Qur'an.

A third point of comparison, which is extremely significant, is the story of Moses, and especially the Exodus from Egypt of the Hebrews enslaved to the Pharaoh. Here I can only give a highly compressed account of the study of this subject that appears in my book. I have noted the points where the Biblical and Qur'anic narrations agree and disagree, and for some details, I have found points where the two texts complement each other in a very useful way. Among the many hypotheses concerning the position occupied by the Exodus in the history

of the pharaohs, I have concluded that the most likely is the theory which makes Merneptah, Rameses II's successor, the pharaoh of the Exodus. The confrontation of the data contained in the Scriptures with archaeological evidence speaks strongly in favour of this hypotheses. I am pleased to be able to say that the Biblical narration contributes weighty evidence leading us to situate Moses in the history of the pharaohs: Moses was born during the reign of Rameses II. Biblical data are therefore of considerable historical value in the story of Moses.

The medical study of the mummy of Merneptah has yielded further useful information on the possible causes of this pharaoh's death.

The fact that we today possess the mummy of this pharaoh, which, to be exact, was discovered in 1898, is one of paramount importance. The Bible records that it was engulfed in the sea, but does not give any details as to what subsequently became of the body. The Qur'an, in the sura *Yunus*, notes that the body of the pharaoh, who was to be damned. would be saved from the waters.

﴿فَٱلْيَوْمَ نُنَجِّيكَ بِبَدَنِكَ لِتَكُونَ لِمَنْ خَلْفَكَ ءَايَةً
وَإِنَّ كَثِيرًا مِّنَ ٱلنَّاسِ عَنْ ءَايَٰتِنَا لَغَٰفِلُونَ﴾

This day We save thee in thy body so that thou mayest be a Sign for those who come after thee (10:92)

A medical examination of this mummy, has, moreover, shown that the body could not have stayed in the water for long, because it does not show signs of deterioration due to prolonged submersion.

Here again, the confrontation of the narration in the Qur'an with the data provided by modern knowledge does not give rise to the slightest objection from a scientific point of view.

The Old Testament constitutes a collection of literary works produced in the course of roughly nine centuries and which has undergone many alterations. The part played by man in the actual composition of the texts of the Bible is quite considerable.

The Qur'anic Revelation has a history which is radically different. From the moment it was first communicated to man, it was learnt by heart and written down during Muhammad's own life time . It is thanks to this the Qur'an does not pose any problem of authenticity.

A totally objective examination of it, in the light of modern knowledge, leads us to recognise the agreement between the two, as has already been noted on repeated occasions. It makes us deem it quite unthinkable for a man of Muhammad's time to have been the author of such statements, on account of the state of knowledge in his day. Such considerations are part of what gives the Qur'anic Revelation its unique place, and forces the impartial scientist to admit his inability to provide an explanation which calls solely upon materialistic reasoning.

THE LIGHT OF REVELATION

INTRODUCTION

WHAT IS LIFE.

Man's existence in this world and the creation of this entire universe are not mere accidents or products of a fortuitous nature. This universe, every single atom of it, manifests and points us to the realization of a Loving, Merciful and All-powerfull Creator. Without a Creator nothing can exist. Every single soul knows that he is existing and that his existence is dependent on a Creator - he knows for sure that he cannot create himself. Therefore it is his duty to know his master creator-God.

MANKIND

Man is a unique creature. God establishes man as His Representative or Deputy to govern over all other creatures in this world. He is endowed with the faculty of REASON, which differentiates him from all other animals. The Prophet says:

" God has not created anything better than Reason or anything more perfect or more beautiful than Reason............"

Together with this faculty to discriminate and discern, Man is given the freedom (free-will) to choose for himself a way of life worthy of his position as God's Representative or to fall lower than the lowest of all animals or creations. Man is born pure and sinless. He is given the free will to do righteous deeds or indulge in sins.

DIVINE GUIDANCE.

God, out of His abundant Love and Mercy for mankind has not left us in darkness to discover the right path by trial and error alone. Coupled with our intellectual capability to reason, God bestowed upon us DIVINE GUIDANCE that outline the Criterion for truth and the knowledge and reality of our existence in this world and the Hereafter.

REVELATIONS:

From th beginning of mankind God sent Prophets to convey his **REVELATION** and to invite to the path of **TRUE PEACE and OBEDIENCE** to One true God. This is ISLAM. This message was conveyed to successive generations of man through different Prophets, all inviting mankind to the same path.

However all the earlier messages or revelatoins fron God were distorted by people of later generations. As a result, pure Revelation from God was polluted with myths, superstitions, idol worship and irrational philosophical ideologies.The religion of God was lost in a plethora of religions.

Human history is a chronicle of man's drift between light and darkness, but God out of His Abundant Love for mankind has not forsaken us.

FINAL REVELATIONS

When mankind was in the depth of the Dark Ages, God sent the final Messenger, Prophet Muhammad (May peace be upon him) to redeem humanity. The revelation to Prophet Muhammad represents the ultimate and permanent source of guidance for mankind.

CRITERIA FOR TRUTH

How do we know that a revelation like the Qur'an is the word of God? The criteria for truth can be easily understood by all:-

1. RATIONAL TEACHINGS: Since God bestowed reason and intellect to mankind, it is our duty to use it to distinguish truth from falsehood. True undistorted revelation from God must be rational and can be reasoned out by all unbias minds.

2. PERFECTION: Since God is All Perfect, His revelation must be perfect and accurate, free from mistakes, omission, interpolations and multiplicity of versions. It should be free from contradictions in its narration.

3. NO MYTHS OR SUPERSTITIONS: True revelation from God is free from myths or superstitions that degrade the dignity of God or man.

3. SCIENTIFIC: Since God is the Creator of all knowledge, true revelation is scientific and can withstand the challange of science at all times.

5. PROPHECY: God is the Knower of the past, present and future. Thus His word of prophecies in His revelation will be fulfilled as prophesied.

6. UN-IMITABLE BY MAN: True revelation from God is infallible and cannot be imitated by man. God's true revelation is a Living miracle, an open book challenging all mankind to see and prove for themselves.

Dear Reader,

There is no compulsion for man to accept the TRUTH. But it is certainly a shame upon the human intellect when man is not even interested in finding out as to what is the TRUTH!

Islam teaches that God has given man the faculty of reason and therefore expects man to reason things out objectively and systematically for himself. To reflect and to question and to reflect.

Nobody should press you to make a hasty decision to accept any of the teachings of Islam, for Islam teaches that man should be given the freedom to choose. Even when man is faced with the TRUTH, there is no compulsion upon man to embrace it.

But before you begin to form an opinion about Islam, ask yourself whether your existing knowledge of Islam thorough enough. Ask yourself whether that knowledge has been obtained through non-Muslim third party sources who themselves have probably been exposed to only random glimpses of Islamic writings and have yet to reason on Islam objectively and systematically themselves.

It is fair that one should form an opinion about the taste of a particular dish , taste it just by hearsay from others who may themselves not necessarily have tasted the dish yet. Similarly you should find out for yourself about Islam from reliable sources and not only taste it, but digest it well before you form an opinion. That would be an intellect approach to Islam.

It is up to you to make the next move.

In making your move, Islam continuously reassures you that your rights to freedom of choice and freedom to use that God-given faculty of thought and reason will be respected. Every man has that individual will. No one else can take away that will and force you to surrender to the Will of God. You have to find out and make that decision yourself.

May your intellectual journey towards the TRUTH be a pleasant one.